

COMMENTS ON THE PROPOSAL TO PLACE THE GENERIC NAME *GARI* SCHUMACHER, 1817, ON THE OFFICIAL LIST UNEMENDED. Z.N.(S.) 1461

(see this volume, pages 90-96)

By Harald A. Rehder (Smithsonian Institution, Washington, D.C., U.S.A.)

With Dr. L. R. Cox's basic proposal I am in full agreement, and it is only with his request for the designation of a Neotype for *Tellina gari* Linnaeus that I differ.

To the point raised in paragraph 4, namely, that many leading authorities on Mollusca have used *Gari* as a generic name, I would add that a check of the Zoological Record over the last thirty years, as well as a careful survey of all books on the shelves of the library of the Division of Mollusks of the U.S. National Museum, reveals the fact that a majority of the authors, 34 in number, have used *Gari* as a valid name for the group that, as explained below, should be called *Psammobia* Lamarck, 1818, while 29 have used Lamarck's name. I mention this because there have been statements made that a majority of recent workers on mollusks have preferred *Psammobia* over *Gari*.

It is only on the question of the identity of the type-species of *Gari*, *Tellina gari* Linnaeus, 1758, that I must differ from him. Furthermore, the genus *Psammobia* Lamarck, 1818, with the type-species *Tellina fervensis* Gmelin, 1791, is in my opinion a distinct taxon, subgenerically, and possibly even generically, different from *Gari*.

The original diagnosis of *Tellina gari* in 1758 is admittedly brief and inconclusive, Linnaeus describing the shell as oval with transverse recurved striae and obsolete laterals. From his diagnoses of other well-established species we see that "*striis transversis recurvatis*" refers to the growth lines, or striae, curving upwards at the posterior end. If the shell had possessed oblique striae running across the shell (as in Cox's proposed neotype) Linnaeus would surely have mentioned the fact, as he did for *Tellina carnaria* ("oblique striata") or *T. digitaria* ("*striis obliquis uniformibus*").

Of the two figures cited by Linnaeus, that of Argenville, pl. 25, fig. I, although fairly crude, matches certain specimens of *Psammobia vespertina* Gmelin, as Hanley (*Ipsa Linnaei Conchylia*, 1855, p. 34) has pointed out, and the descriptive phrase given by Argenville—streaked with white and purple—does no great violence to this assignment. No locality is mentioned by this author.

The other reference, to Rumphius, pl. 45, fig. D, is much more pertinent, for not only did Linnaeus borrow the binomen of his species bodily from Rumphius's work, as well as the cited locality, but the description in Rumphius is much more extensive, and the figure, though crude, is readily recognizable when studied in conjunction with the description in the text; in the collection of the U.S. National Museum we have a specimen, probably from Samoa, that matches this figure almost exactly. As Linnaeus did not possess a specimen of this species (Hanley, *op. cit.*, p. 35), we must have recourse to the reference cited by him, and for the reasons outlined above it is logical that the name be restricted to the species described and figured by Rumphius.

Many authors have identified Rumphius's species with what Lamarck in 1818 described as *Psammotaea violacea* and *P. serotina* (Hanley, *op. cit.*, p. 34; Martens, 1897, *Ergebn. Reise Nied. Ost Indien*, vol. 4, p. 239; Dall, 1900, *Trans. Wagner Inst. Sci. Philadelphia*, v. 3, p. 970; Martens, 1902, *Rumphius Gedenckboek*, p. 127; Dantzenberg & Fischer, 1914, *Jour. de Conch.*, v. 61, p. 222; van Bentham *Jutting in litt.* fide Cox, 1960, *Bull. Zool. Nomencl.*, v. 18, p. 91). Some of these authors, although admitting the identity of Linnaeus's species with Lamarck's *violacea*, have advocated the abandonment of the Linnean name because of the confusion brought about by the varying concepts of Linnaeus's *Tellina gari* published by subsequent workers like Spengler, Chemnitz, Born, Schumacher, and Lamarck. A factor that added to, and probably originated much of this confusion, is that Linnaeus in 1764, in the *Museum Ulricae*, p. 478, gave an amplified description under the name *Tellina gari* of a species with oblique striations on the median part of the valves. This is so at variance with the description and references given by Linnaeus in 1758, that it is obvious that it represents a different species. An examination of a photograph of the shell in the Museum Ulricae collection, now housed at the University of Uppsala, shows it to bear a resemblance to the Mediterranean *Psammobia intermedia* Deshayes; Dr. Odhner has identified it doubtfully with *P. corrugata* Desh.

Regardless of this confusion, I feel, as I have already stated above, that the Linnean name *Tellina gari* should be restricted to the species represented by Rumphius's *Tellina gari*, which is, as I believe I have been able to show, a readily recognizable species. There is therefore no need for the designation of a neotype, especially one so at variance with the original description and references given by Linnaeus in 1758. This Western Pacific species will therefore bear the name *Gari gari* (Linnaeus, 1758).

I feel that the conclusion reached above may be the more acceptable because a careful examination of shells of *Gari gari* and "*Tellina*" *fervensis* Gmelin, the type-species of *Psammobia* Lamarck, 1818, leads me to believe that we are dealing with two different groups. The latter species, and those related to it, have not only more compressed shells but also a pallial sinus with a smooth surface and with the ventral border confluent throughout almost all its length with the pallial line. *Gari gari*, on the other hand, has a pallial line for only 1/2 to 3/5 of its length; the surface of the pallial sinus is noticeably striated. The levator pedis muscle scars under the hinge line consist in the species grouped around *Psammobia fervensis*, of a conspicuous, irregularly oval scar anterior to the cardinal teeth, and one, or occasionally two, small scars posterior to the cardinal teeth. In *Gari gari*, these muscle scars consist of a series of smaller, irregular, more or less separated scars anterior to the teeth. All these differences, which may very likely be accompanied by other differences in the soft parts, appear to be sufficient to allow us to recognize two groups of subgeneric, and possibly generic rank, *Gari* Schumacher, 1817, and *Psammobia* Lamarck, 1818.

The summary of Dr. Cox's case, as outlined in his paragraph 10, should be approved in all its parts, except that in (3)(a) the last three lines, following "*Tellina gari*", should be replaced by the words: "as interpreted by the reference to Rumphius cited by Linnaeus, 1758".

The application for the designation of a Neotype for *Tellina gari* Linnaeus, 1758, as outlined in the Appendix to Dr. Cox's proposal, should be turned down.

By Joseph P. E. Morrison (Associate Curator, Division of Mollusks, U.S. National Museum)

I have read the comments by Dr. Rehder and am in complete agreement with the views expressed therein and the conclusions reached.

By Ernst Mayr (Museum of Comparative Zoology, Harvard College, Cambridge, Mass., U.S.A.)

I agree with Dr. Cox that a decision should be made whether to accept the name *Gari* Schumacher or *Psammobia* Lamarck for a group of bivalves to which both of these names have been applied. However, for a series of reasons, I have come to the conclusion that the stability and universality of nomenclature is far better served by placing the name *Gari* on the Index of Rejected Names.

Cox implies that the reason why the name *Gari* has been rejected by the majority of authors is that these zoologists objected to its genitive form. My own studies have convinced me that the name has been rejected primarily owing to its uncertainty. *Gari* Schumacher is based by tautonymy on *Tellina gari* of Linnaeus and the identification of *Gari* depends upon the identification of the Linnean species. The illustration of Rumphius's *Tellina gari*, to which Linnaeus refers, shows a smooth shelled species. The verbal description of Linnaeus refers to a species covered with grooves or ribs. The additional reference to Argenville sheds no additional light on the situation. Subsequent authors have identified Linnaeus's dubious *T. gari* either with *Psammobia serotina* of Lamarck, or with *Psammotaea violacea* Lamarck, and possibly even with *P. ferrensensis*. A glance through the modern literature indicates that few, if any, of the authors have adopted *Tellina gari* Linnaeus. The last thorough discussion of this species is that of Dautzenberg and Fischer, 1914, 'Journal de Conchyliologie', vol. 61, p. 223, who come to the conclusion: "il nous semble nécessaire d'abandonner le nom *Gari* comme étant tout-à-fait incertain". They use *Psammobia pulchella* Lamarck for the species which they might have otherwise called *gari*. From all this, two facts are apparent. (1) That Linnaeus's species is unidentifiable, and (2) that it does not at all qualify as a species eligible for a neotype designation. As clearly stated in Decision 34, paragraph 3 of the Copenhagen Decisions, "in particular, neotypes are not to be established for nominal species, the names of which are not in general use".

The matter is, however, more serious than that. Consultation of the malacological literature has clearly established that the name *Psammobia* is used by far more authorities, monographs and textbooks than the name *Gari*. Designating a neotype for the otherwise unidentifiable species *Tellina gari* would have precisely the opposite effect of that for which the neotype ruling was adopted at Copenhagen, namely to serve the principles of stability and universality. I might add that there are two further reasons why the resuscitation of the name *Gari* would be unfortunate. The first one is that a genus *Garum* was proposed by Dall in 1900 for some of the species included by previous authors in *Gari*. To have two such similar names as *Gari* and *Garum* in the same major taxon can only lead to confusion. The second reason is that the widely accepted name *Psammobia* has given its name to the family PSAMMOBIIDAE and that the